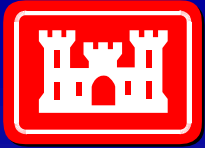


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# ***The Upper Mississippi River System (UMRS ) Environmental Management Program***

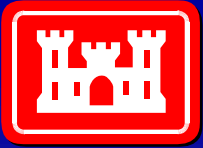


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# Upper Mississippi River System (UMRS)





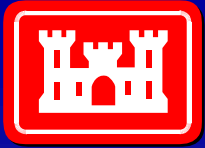
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# WRDA '86



**“a nationally significant ecosystem  
and a nationally significant commercial  
navigation system” -- WRDA '86**



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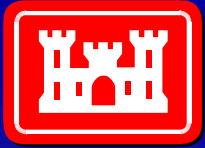
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# ***The UMRS Environmental Management Program***







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# Partnership

**US Fish and Wildlife Service**

**US Geological Survey**

**State of Illinois**

**State of Iowa**

**State of Wisconsin**

**State of Minnesota**

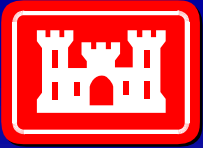
**State of Missouri**

**UMR  
Basin Association**



**US Corps of Engineers**  
St. Paul - Rock Island - St. Louis

**Public**



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# EMP Elements

- **Long Term Resource Monitoring  
(LTRM)**

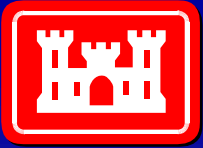
**\$10.5 Million Annually**



- **Habitat Restoration and Protection Projects**

**\$23 Million Annually**



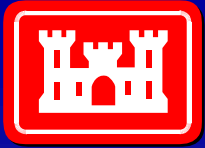


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# Habitat Needs Assessment

- **Technically sound management framework**
- **Tool to identify & prioritize habitat projects**
- **Identify habitat needs**



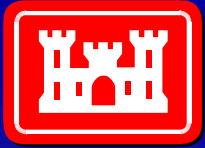
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# Habitat Restoration and Protection Projects

	Total Program	St. Paul District
<b>Completed</b>	<b>33</b>	<b>21</b>
<b>Under Construction</b>	<b>10</b>	<b>1</b>
<b>Planning/Design</b>	<b>17</b>	<b>9</b>





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# Habitat Restoration and Protection Projects



**Islands**



**Dredging**



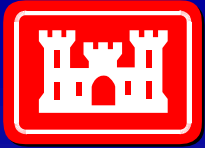
**Control Structures**



**Water Level Management**



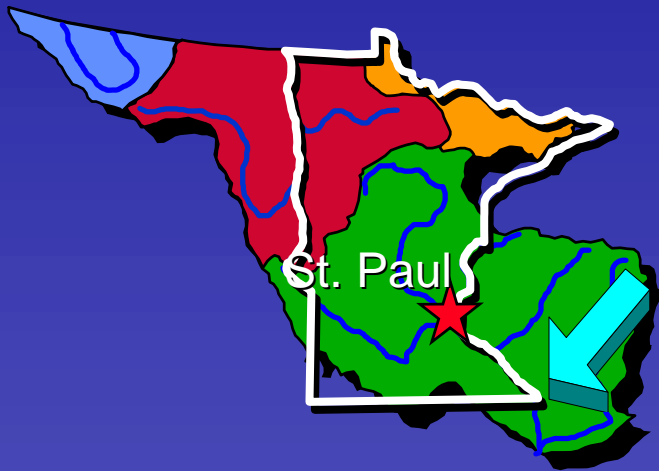
**Bank Stabilization**

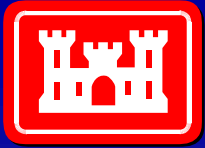


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# Pool 8 Islands, WI





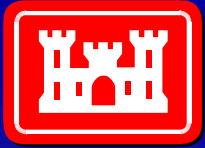
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# Pool 8 Islands Phase I





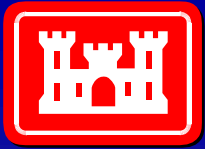


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# Pool 8 Islands Phase II





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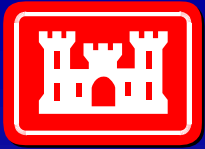
# Polander Lake, MN

Habitat Project  
(EMP)

+

Placement Site  
Unloading  
(O&M)





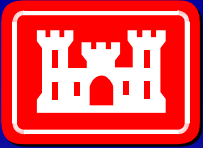
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# Finger Lakes, MN







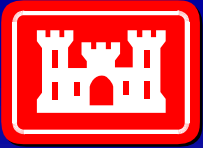
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# Small Scale Drawdown

- One-time event
- 50-acre pond
- Consolidation
- Seed germination
- Outlet Closure
- Pumping



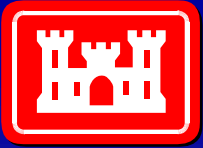


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# Bank Stabilization





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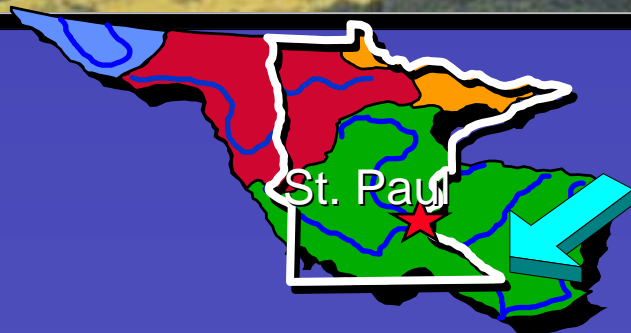
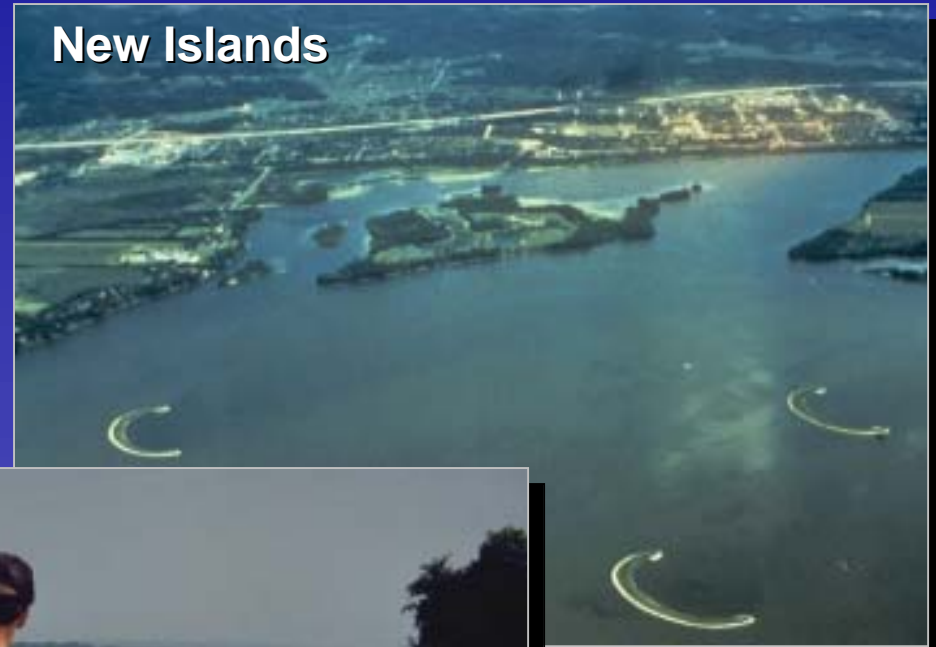
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# Lake Onalaska, WI

Dredging at  
Rosebud Island

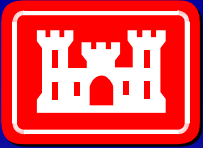


New Islands



Vegetation-filled channel



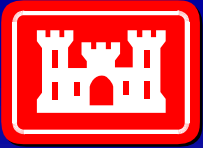


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# Indian Slough





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# Environmental Management Program

## *Web Sites*

[www.mvp.usace.army.mil](http://www.mvp.usace.army.mil)

[www.mvr.usace.army.mil](http://www.mvr.usace.army.mil)

[www.umesc.usgs.gov](http://www.umesc.usgs.gov)

